

Application No.: 10/036,577
Filed: 12/31/2001

Examiner: Lerner, M.
Art Unit: 2654

Amendments to the Claims

The following listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims

1 1 (Currently Amended). A speech recognition system, comprising:
2 at least one recognizer to produce output signals from audio input signals; and
3 signals based at least in part on speech models and grammar files;
4 a feedback module to generate feedback data; data; and
5 a controller adaptable to modify the speech models and the grammar files based
6 on the feedback data to improve the performance of the at least one recognizer.

1
1 2 (Currently Amended). The speech recognition system of claim 1, wherein the
2 ~~speech recognition system further comprises a controller~~ the controller is operable to
3 coordinate production of the output signals.

1
1 3 (Currently Amended). The speech recognition system of ~~claim 2~~ claim 1,
2 wherein the controller is adaptable to provide the feedback data to the recognizer
3 wherein the recognizer is operable to receive the feedback data.

1
1 4 (Cancelled).

Application No.: 10/036,577
Filed: 12/31/2001

Examiner: Lerner, M.
Art Unit: 2654

1 5 (Currently Amended). The speech recognition system of ~~claim 2~~ claim 1,
2 wherein the controller is adaptable to store the feedback data in a storage.

1

1 6 (Cancelled).

1

1 7 (Original). The speech recognition system of claim 1, wherein at least one
2 recognizer further comprises multiple recognizers and a predictor to select a best
3 performing recognizer from the multiple recognizers based upon the feedback data.

1

1 8 (Original). The speech recognition system of claim 1, wherein the output
2 signals correspond to one of the group comprised of: text, and command signals.

1

1 9 (Original). The system of claim 1, where the feedback module is adapted to
2 generate feedback data based on internal analysis of at least one of the group
3 comprised of: grammar files, dialog progression, and output signals.

1

1 10 (Currently Amended). The system of claim 1, wherein the feedback module is
2 adapted to generate feedback data based on external inputs ~~comprised of~~ comprising at
3 least one of the group comprised of: annotated grammar files and information received
4 through an application programming interface.

1

1 11 (Currently Amended). A speech recognition system, comprising:

Application No.: 10/036,577
Filed: 12/31/2001

Examiner: Lerner, M.
Art Unit: 2654

2 at least one speech recognizer to convert audio input signals to output signals,
3 wherein the speech recognizer is adapted to receive feedback data and adjust
4 operation by modifying speech models and grammar files based upon the feedback
5 data.

1
1 12 (Original). The speech recognition system of claim 11, wherein the system
2 further comprises a controller operable to provide the feedback data to the recognizer.

1
1 13 (Currently Amended). The speech recognition system of ~~claim 11~~ claim 12,
2 wherein the controller is adaptable to provide the feedback data to the recognizer.

1
1 14 (Original). The speech recognition system of claim 13, wherein the speech
2 recognizer receives the feedback data in a manner of one of the group comprised of:
3 real-time, and off-line.

1
1 15 (Original). The speech recognition system of claim 11, wherein the speech
2 recognition system further comprises a feedback module to collect feedback data.

1
1 16 (Currently Amended). A method of generating speech recognition feedback
2 data, the method comprising:
3 converting an audio input signal to an output signal;
4 estimating a correctness measure wherein the correctness measure expresses if
5 the output signal is a correct representation of the audio input signal; and

Application No.: 10/036,577
Filed: 12/31/2001

Examiner: Lerner, M.
Art Unit: 2654

6 forming a feedback data element wherein the element ~~consists of~~ comprises at
7 least one of the audio input signal, the output signal, and the correctness measure.

1

1 17 (Original). The method of claim 16, wherein the method further comprises
2 storing the feedback data element.

1

1 18 (Original). The method of claim 17, wherein storing the feedback data element
2 further comprises storing one of the group comprised of: only those feedback data
3 elements for which the correction measure indicates that the output signal was not
4 correct and those feedback data elements for which the correction measure indicates
5 that the output signal was correct.

1

1 19 (Original). The method of claim 16, wherein the feedback data is filtered
2 according to a criteria.

1

1 20 (Original). The method of claim 16, wherein the method further comprises
2 utilizing the feedback data element, wherein utilizing comprises at least one of the group
3 comprised of: modifying a grammar file based on the feedback data, updating speech
4 models based on the feedback data and updating a prediction mechanisms based on
5 the feedback data.

1

Application No.: 10/036,577
Filed: 12/31/2001

Examiner: Lerner, M.
Art Unit: 2654

1 21 (Original). The method of claim 16, wherein the method further comprises
2 providing the feedback data element to a speech recognition system in which the
3 feedback data is being collected.

1

1 22 (Original). The method of claim 16 wherein estimating a correctness measure
2 further comprises at least one from a group comprised of: receiving information through
3 an application programming interface, analyzing grammar files, analyzing the output
4 signal and analysis of the progression of the dialog.

1

1 23 (Original). The method of claim 16, wherein the method further comprises:
2 assigning an identifier to the audio input signal; and
3 including the identifier as part of the feedback data element.

1

1 24 (Original). The method of claim 16, wherein the method further comprises:
2 Identifying relevant contextual information; and
3 Including the relevant contextual information as part of the feedback data
4 element.

1

1 25 (Currently Amended). An article including machine-readable code that, when
2 executed, causes a machine to:
3 convert an audio input signal to an output signal;
4 estimate a correctness measure wherein the correctness measure expresses if
5 the output signal is a correct representation of the audio input signal; and

Application No.: 10/036,577
Filed: 12/31/2001

Examiner: Lerner, M.
Art Unit: 2654

6 form a feedback data element wherein the element ~~consists of~~ comprises at
7 least one of the audio input signal, the output signal, and the correctness measure.

1

1 26 (Original). The article of claim 25, wherein the article contains further
2 machine-readable code that, when executed, causes the machine to provide the
3 feedback data element to a speech recognition system in which feedback data is being
4 collected.

1

1 27 (Currently Amended). The article of claim 25, wherein the code that, when
2 executed, causes the machine to provide the feedback data element element and
3 further causes the machine to utilize the feedback data element element, wherein
4 utilizing the feedback data comprises at least one of the group comprising: modifying a
5 grammar file based on the feedback data, updating speech models based on the
6 feedback data and updating a prediction mechanisms based on the feedback data.

1

1 28 (Original). The article of claim 25, wherein the article contains further
2 machine-readable code that, when executed, causes the machine to store only those
3 audio input signals for which the correction status indicates that a correction to the
4 output signal was necessary.

1

1 29 (Original). The article of claim 25, wherein the article contains further
2 machine-readable code that, when executed, causes the machine to store only those

Application No.: 10/036,577
Filed: 12/31/2001

Examiner: Lerner, M.
Art Unit: 2654

- 3 audio input signals for which the correction status indicates that no correction to the
- 4 output signal was necessary.